



## SEQUENCE LISTING

<110> Cheung, Ambrose  
Manna, Adar  
Zhang, Gongyi

<120> COMPOSITIONS AND METHODS FOR AFFECTING VIRULENCE DETERMINANTS IN BACTERIA

<130> DC-0199

<140> US 10/043,539  
<141> 2002-01-11

<150> US 60/261,233  
<151> 2001-01-12

<150> US 60/261,607  
<151> 2001-01-12

<150> US 60/289,601  
<151> 2001-05-08

<160> 34

<170> PatentIn version 3.1

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taacatagtt gtagatagtt ttcgatttaa tacattaaat gtgaaccttg ctacaacaag 180  
atgtgcatca gaaggagtgg tttaata atg agt aaa att aat gat att aat gat 234  
Met Ser Lys Ile Asn Asp Ile Asn Asp  
1 5  
tta gtc aac gca aca ttt caa gtt aag aag ttt ttc aga gat aca aaa 282  
Leu Val Asn Ala Thr Phe Gln Val Lys Lys Phe Phe Arg Asp Thr Lys  
10 15 20 25  
aag aag ttc aat ttg aac tat gaa gaa att tat att tta aat cat att 330  
Lys Lys Phe Asn Leu Asn Tyr Glu Glu Ile Tyr Ile Leu Asn His Ile  
30 35 40  
tta aga agt gag tct aac gaa atc tca tct aaa gag att gct aag tgc 378  
Leu Arg Ser Glu Ser Asn Glu Ile Ser Ser Lys Glu Ile Ala Lys Cys  
45 50 55  
tca gag ttc aaa cct tac tat tta act aaa gct tta gaa aag cta aaa 426  
Ser Glu Phe Lys Pro Tyr Tyr Leu Thr Lys Ala Leu Gln Lys Leu Lys  
60 65 70  
gat tta aaa ttg tta tca aag aaa aga agt tta caa gac gaa aga aca 474  
Asp Leu Lys Leu Leu Ser Lys Lys Arg Ser Leu Gln Asp Glu Arg Thr  
75 80 85  
gtt att gtt tat gtt aca gat aca caa aaa gca aat att caa aaa ctg 522

Val Ile Val Tyr Val Thr Asp Thr Gln Lys Ala Asn Ile Gln Lys Leu  
 90 95 100 105  
 att tca gaa tta gaa gaa tac att aaa aat taaatcaagg ttaattgcgt 572  
 Ile Ser Glu Leu Glu Glu Tyr Ile Lys Asn  
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Glu Glu Ile Tyr Ile Leu Asn His Ile Leu Arg Ser Glu Ser Asn Glu  
 35 40 45

Ile Ser Ser Lys Glu Ile Ala Lys Cys Ser Glu Phe Lys Pro Tyr Tyr  
 50 55 60

Leu Thr Lys Ala Leu Gln Lys Leu Lys Asp Leu Lys Leu Leu Ser Lys  
 65 70 75 80

Lys Arg Ser Leu Gln Asp Glu Arg Thr Val Ile Val Tyr Val Thr Asp  
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Ile Lys Asn  
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                     20                      25                      30  
 Ser Phe Glu Glu Phe Ala Val Leu Thr Tyr Ile Ser Glu Asn Lys Glu  
                     35                      40                      45  
 Lys Glu Tyr Tyr Leu Lys Asp Ile Ile Asn His Leu Asn Tyr Lys Gln  
                     50                      55                      60  
 Pro Gln Val Val Lys Ala Val Lys Ile Leu Ser Gln Glu Asp Tyr Phe  
                     65                      70                      75                      80  
 Asp Lys Lys Arg Asn Glu His Asp Glu Arg Thr Val Leu Ile Leu Val  
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 Asn Ala Gln Gln Arg Lys Lys Ile Glu Ser Leu Leu Ser Arg Val Asn  
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20 25 30

Ser Phe Glu Glu Phe Xaa Ile Leu Thr Tyr Ile Xaa Xaa Gln Xaa Glu  
35 40 45

Asn Glu Xaa Xaa Leu Lys Asp Ile Ile Xaa Xaa Leu Xaa Tyr Lys Gln  
50 55 60

Pro Gln Leu Val Lys Ala Leu Lys Xaa Leu Lys Lys Xaa Xaa Tyr Leu  
65 70 75 80



Ser Lys Lys Arg Ser Xaa Xaa Asp Glu Arg Thr Val Leu Ile Xaa Val  
85 90 95

Xaa Asp Xaa Gln Arg Xaa Lys Ile Glu Xaa Leu Leu Ser Xaa Val Asn  
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Gln Xaa Ile Lys Xaa Xaa Asn Xaa  
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35 40 45

Asn Thr Leu Pro Phe Lys Lys Ile Val Ser Asp Leu Cys Tyr Lys Gln  
50 55 60

Ser Asp Leu Val Gln His Ile Lys Val Leu Val Lys His Ser Tyr Ile  
65 70 75 80

Ser Lys Val Arg Ser Lys Ile Asp Glu Arg Asn Thr Tyr Ile Ser Ile  
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Gln Ile Ile Lys Gln Phe Asn  
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Phe Val Glu Phe Thr Ile Leu Ala Ile Ile Thr Ser Gln Asn Lys Asn  
35 40 45

Ile Val Leu Leu Lys Asp Leu Ile Glu Thr Ile His His Lys Tyr Pro  
 50 55 60

Gln Thr Val Arg Ala Leu Asn Asn Leu Lys Lys Gln Gly Tyr Leu Ile  
 65 70 75 80

Lys Glu Arg Ser Thr Glu Asp Glu Arg Lys Ile Leu Ile His Met Asp  
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Leu Leu Ala Asp Lys Asp  
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